

status quo

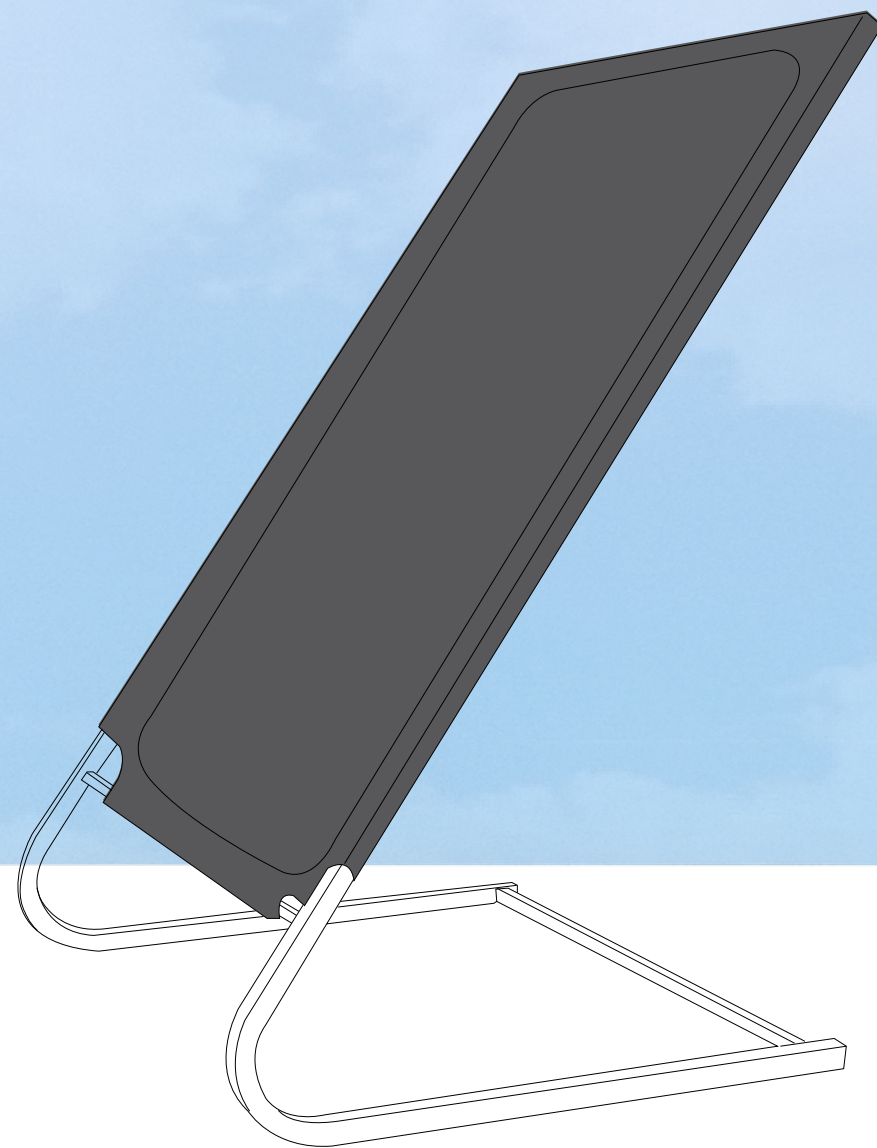


status quo



new premise

_a stretched, „blank canvas“ of high-tech knit fabric



new premise

_interacts with a sitting body to create a seat together





active sitting

_active seating principle reduces pressure points and encourages blood flow

pressure points

_a correct and even distribution of weight is essential for sitting comfort



adjustability

- _immediately conforms to changes in sitting position
- _constantly supports the body in all posture variations





micro-climate

_open mesh knit provides optimal microclimate



_an iterative process in order to determine how best to engineer the knit



development





development



development

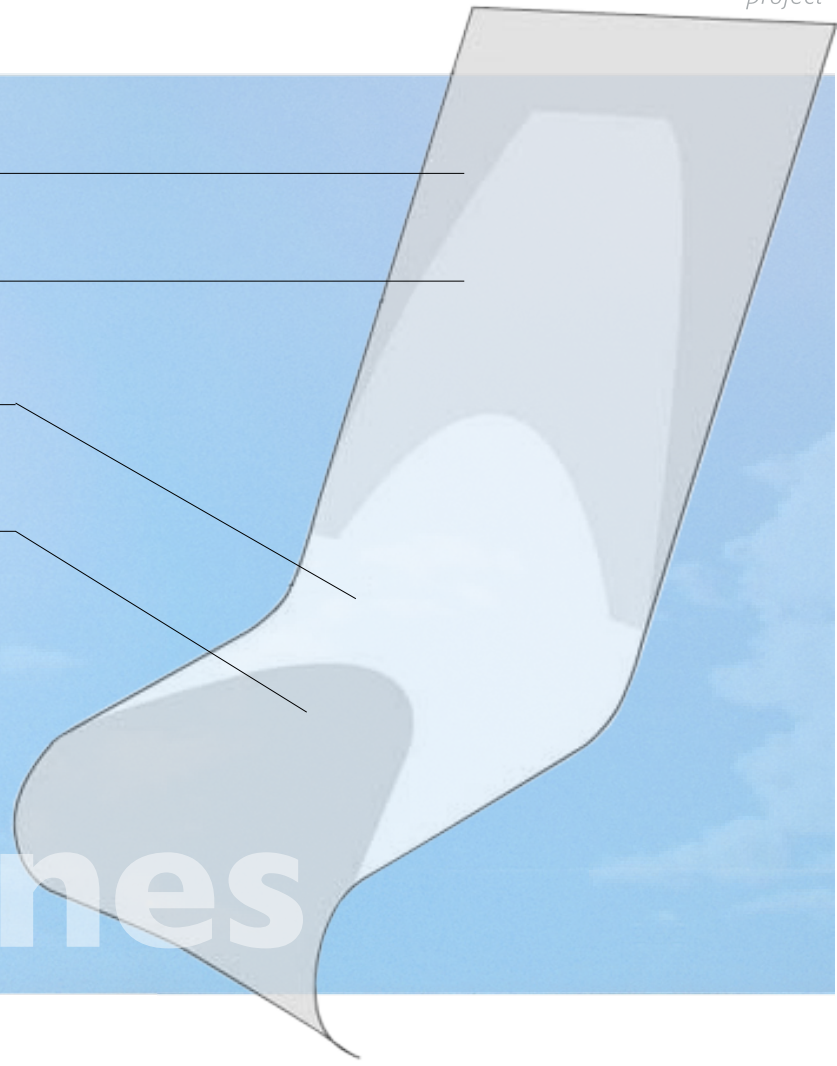
development



development



- A anchoring support area for elastic zone_non-elastic
- B back area – elastic spatially formable zone
- C transition zone from seat to back area_creates space and support for buttocks
- D upper thigh support area – not elastic



engineered zones

_each stitch in each zone of the aeras knit fits uniquely to each form and weight



_minimal seat cushioning creates a basis for approaching the backshell in an unfettered manner



geometry



_open angle (171°) of the frame geometrically supports the knit material in unhindered adjusting to the body
_since the body defines the sitting position, it has more options if the frame is not in the traditional geometry

seat·pro



aeras seat

removeable cover knit (aeras flexible knit™) —————

engineered functional knit
(combination aeras knit™/ aeras flexible knit™) —————

inner frame for attaching functional knit —————

backshell —————



simplicity

_reduced number of parts, efficient production, maintenance-friendly



material

_flammability 12s/60s_vertical burn test/ABD 0031,

_smoke density flaming & non-flaming, toxicity_heat release

_load tests, martindale, dynamic fatigue and wellness test (details available)

„the comfort of the seats was predominantly judged positively, so that no serious restrictions or reservations regarding their operation exist“
IAD

the evaluation of the comfort level was shown to increase over time.

comfort testing

_ darmstadt university of technology, germany (IAD), a leading aircraft manufacturer and a major european airline

key benefits

- _unsurpassed sitting comfort in all body positions, reduced pressure points and increased blood flow
- _good micro-climate through air permeability of aeras knit™
- _target weight 8kg / pax

next challenges

_seat certification

_two independent application developments

ludekedesign

studio for industrial design
switzerland
www.ludekedesign.com

a primary focus is the airline industry,
with over 15 years experience

kobleder#

advanced knitting technologies
austria
www.kobleder.at

market leader in technical knits setting
new standards for knit technology

greiner purtec

manufacturer of aircraft seating foams
austria
www.greinerpurtec.at

35 years of experience producing comfort
for the airline industry from foams to
material innovations and services.

aeras partners

“The most important innovations
are those that change our way of thinking.”

Prof. Dr. Hans-Jürgen Quadbeck-Seeger

thank you